

L26 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:314503 CAPLUS

DN 136:348304

TI Positive photosensitive composition

IN Kodama, Kunihiro; Aoai, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 148 pp.

CODEN: EPXXDW

DT Patent

LA English

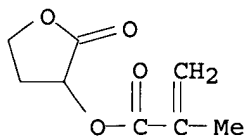
FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                  | KIND | DATE     | APPLICATION NO. | DATE       |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|------------|
| PI   | EP 1199603                                                                                                                                                                                                                                                                  | A1   | 20020424 | EP 2001-124329  | 20011019   |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                   |      |          |                 |            |
|      | JP 2002131897                                                                                                                                                                                                                                                               | A2   | 20020509 | JP 2000-321128  | 20001020   |
|      | JP 2002214774                                                                                                                                                                                                                                                               | A2   | 20020731 | JP 2001-132546  | 20010427   |
|      | US 2002102491                                                                                                                                                                                                                                                               | A1   | 20020801 | US 2001-978103  | 20011017 ✓ |
| PRAI | JP 2000-321128                                                                                                                                                                                                                                                              | A    | 20001020 |                 |            |
|      | JP 2000-352899                                                                                                                                                                                                                                                              | A    | 20001120 |                 |            |
|      | JP 2001-132546                                                                                                                                                                                                                                                              | A    | 20010427 |                 |            |
| AB   | A pos. photosensitive compn. comprises a compd. capable of generating a specified sulfonic acid upon irradiation with one of an actinic ray and radiation and a resin capable of decomposing under the action of an acid to increase the solubility in an alkali developer. |      |          |                 |            |
| IT   | 195000-67-0 216308-45-1 250378-10-0<br>258879-87-7 288303-55-9 297156-40-2<br>301664-71-1 304441-22-3 324770-96-9<br>357413-69-5 398141-19-0 414911-37-8<br>414911-60-7 414911-65-2 414911-75-4<br>414911-76-5 415920-54-6                                                  |      |          |                 |            |
|      | RL: TEM (Technical or engineered material use); USES (Uses)<br>(photo-acid generator used in pos. photoresist compn.)                                                                                                                                                       |      |          |                 |            |
| RN   | 195000-67-0 CAPLUS                                                                                                                                                                                                                                                          |      |          |                 |            |
| CN   | 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1 <sup>3,7</sup> ]dec-2-yl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)                                                                                                   |      |          |                 |            |

CM 1

CRN 195000-66-9

CMF C8 H10 O4

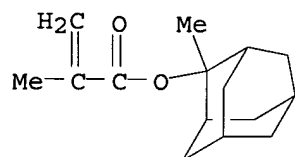


230-232

CM 2

CRN 177080-67-0

CMF C15 H22 O2



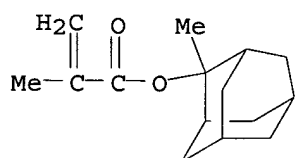
RN 216308-45-1 CAPLUS

CN 2-Propenoic acid; 2-methyl-, polymer with 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-  
2-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

CMF C15 H22 O2



CM 2

CRN 177080-66-9

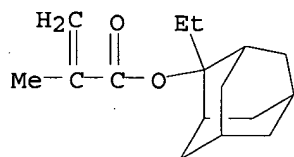
CMF C10 H14 O4

RN 250378-10-0 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester,  
polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA  
INDEX NAME)

CM 1

CRN 209982-56-9

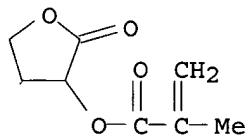
CMF C16 H24 O2



CM 2

CRN 195000-66-9

CMF C8 H10 O4

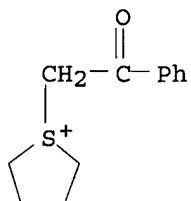


RN 301664-71-1 CAPLUS  
CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with  
1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX  
NAME)

CM 1

CRN 58162-29-1

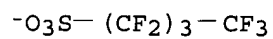
CMF C12 H15-O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S



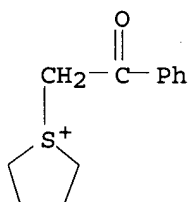
L26 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:119352 CAPLUS  
 DN 136:175472  
 TI Positive photosensitive composition for photofabrication using deep UV ray  
 IN Kodama, Kunihiro; Aoi, Toshiaki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Eur. Pat. Appl., 120 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 1179750                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A1   | 20020213 | EP 2001-117796  | 20010802 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |          |                 |          |
|      | JP 2002122994                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A2   | 20020426 | JP 2001-188670  | 20010621 |
|      | US 2002051933                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A1   | 20020502 | US 2001-921691  | 20010806 |
|      | US 6492091                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B2   | 20021210 |                 |          |
| PRAI | JP 2000-240059                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A    | 20000808 |                 |          |
| AB   | A pos. photosensitive compn. comprises: (A) a compd. generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin containing a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the solubility to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid. The present invention relates to a pos. photosensitive compn. for use in the production process of a semiconductor such as IC, in the production of a circuit board such as liquid crystal and thermal head, and in other photofabrication processes. |      |          |                 |          |
| IT   | 398141-62-3 398141-63-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |          |                 |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses) (onium salt; deep UV photofabrication pos. photoresist compn. containing.)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |          |                 |          |
| RN   | 398141-62-3 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          |                 |          |
| CN   | Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, methanesulfonate (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |          |                 |          |

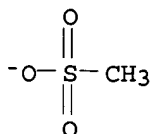
CM 1

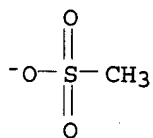
CRN 58162-29-1  
 CMF C12 H15 O S



CM 2

CRN 16053-58-0  
 CMF C H3 O3 S





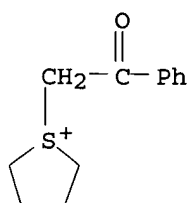
RN 398141-63-4 CAPLUS

CN Cholan-24-oic acid, 3,7,12-trihydroxy-, ion(1-),  
(3.alpha.,5.beta.,7.alpha.,12.alpha.)-, tetrahydro-1-(2-oxo-2-phenylethyl)thiophenium (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S

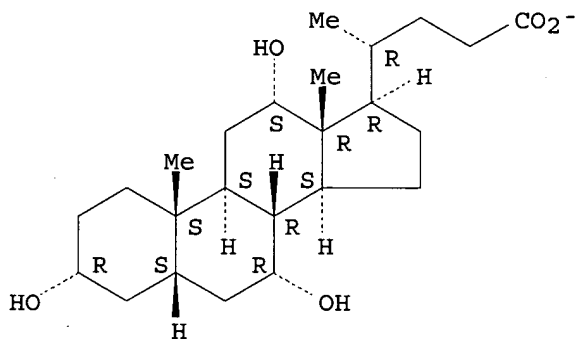


CM 2

CRN 298-43-1

CMF C24 H39 O5

Absolute stereochemistry.



IT 301664-71-1 301664-72-2 398141-19-0

398141-23-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(photoacid generator; deep UV photofabrication pos. **photoresist**  
compn. contg.)

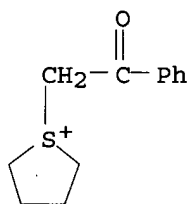
RN 301664-71-1 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with  
1,1,2,2,3,3,4,4,4-nonafluoro-1-butanefluoronic acid (1:1) (9CI) (CA INDEX  
NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



CM 2

CRN 45187-15-3  
CMF C4 F9 O3 S

$-\text{O}_3\text{S}-(\text{CF}_2)_3-\text{CF}_3$

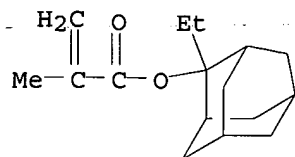
RN 301664-72-2 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with  
1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-1-octanesulfonic acid  
(1:1) (9CI) (CA INDEX NAME)

CM 2

CRN 209982-56-9

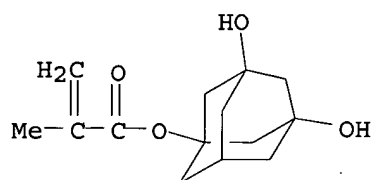
CMF C16 H24 O2



CM 3

CRN 115522-15-1

CMF C14 H20 O4

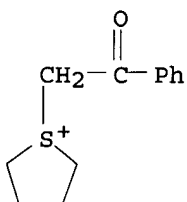




L29 ANSWER 36 OF 37 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:314503 CAPLUS  
 DN 136:348304  
 TI Positive photosensitive composition  
 IN Kodama, Kunihiro; Aoi, Toshiaki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Eur. Pat. Appl., 148 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 1199603                                                                                                                                                                                                                                                                  | A1   | 20020424 | EP 2001-124329  | 20011019 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                   |      |          |                 |          |
|      | JP 2002131897                                                                                                                                                                                                                                                               | A2   | 20020509 | JP 2000-321128  | 20001020 |
|      | JP 2002214774                                                                                                                                                                                                                                                               | A2   | 20020731 | JP 2001-132546  | 20010427 |
|      | US 2002102491                                                                                                                                                                                                                                                               | A1   | 20020801 | US 2001-978103  | 20011017 |
| PRAI | JP 2000-321128                                                                                                                                                                                                                                                              | A    | 20001020 |                 |          |
|      | JP 2000-352899                                                                                                                                                                                                                                                              | A    | 20001120 |                 |          |
|      | JP 2001-132546                                                                                                                                                                                                                                                              | A    | 20010427 |                 |          |
| AB   | A pos. photosensitive compn. comprises a compd. capable of generating a specified sulfonic acid upon irradiation with one of an actinic ray and radiation and a resin capable of decomposing under the action of an acid to increase the solubility in an alkali developer. |      |          |                 |          |
| IT   | 301664-71-1 398141-19-0 414911-37-8<br>414911-60-7 414911-65-2 414911-75-4<br>414911-76-5 414911-87-8 414911-88-9<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(photo-acid generator used in pos. photoresist compn.)                                  |      |          |                 |          |
| RN   | 301664-71-1 CAPLUS                                                                                                                                                                                                                                                          |      |          |                 |          |
| CN   | Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butan-1-sulfonic acid (1:1) (9CI) (CA INDEX NAME)                                                                                                                                |      |          |                 |          |
| CM   | 1                                                                                                                                                                                                                                                                           |      |          |                 |          |
| CRN  | 58162-29-1                                                                                                                                                                                                                                                                  |      |          |                 |          |
| CMF  | C12 H15 O S                                                                                                                                                                                                                                                                 |      |          |                 |          |



CM 2  
 CRN 45187-15-3  
 CMF C4 F9 O3 S

$-\text{O}_3\text{S}-(\text{CF}_2)_3-\text{CF}_3$

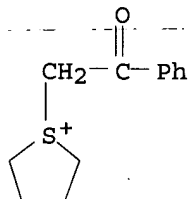
RN 398141-19-0 CAPLUS  
 CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with

trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



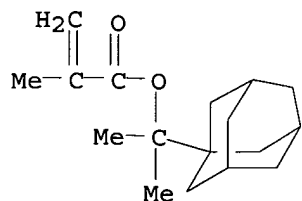
RN 414911-87-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methyl-1-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylethyl ester, polymer with 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 279218-76-7

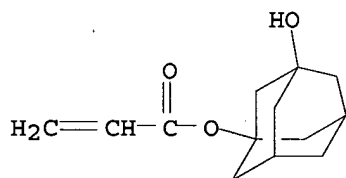
CMF C17 H26 O2



CM 2

CRN 216581-76-9

CMF C13 H18 O3



CM 3

CRN 195000-66-9

CMF C8 H10 O4

(FILE 'HOME' ENTERED AT 16:30:39 ON 20 AUG 2003)

FILE 'REGISTRY' ENTERED AT 16:30:57 ON 20 AUG 2003

L1 SCREEN 970 AND 2067  
L2 STRUCTURE UPLOADED  
L3 QUE L2 AND L1  
L4 SCREEN 970 AND 2067  
L5 STRUCTURE UPLOADED  
L6 QUE L5 AND L4  
L7 SCREEN 970 AND 2067  
L8 STRUCTURE UPLOADED  
L9 QUE L8 AND L7  
L10 SCREEN 963 AND 970 AND 1006 AND 2067  
L11 STRUCTURE UPLOADED  
L12 QUE L11 AND L10  
L13 SCREEN 970 AND 2067  
L14 STRUCTURE UPLOADED  
L15 QUE L14 AND L13  
L16 SCREEN 970 AND 2067  
L17 STRUCTURE UPLOADED  
L18 QUE L17 AND L16  
L19 922 S L3 FULL

FILE 'CAPLUS' ENTERED AT 16:33:56 ON 20 AUG 2003

L20 452 S L19  
L21 32183 S PHOTORESIST OR RESIST COMPOSITION  
L22 391 S L20 AND L21

FILE 'REGISTRY' ENTERED AT 16:36:46 ON 20 AUG 2003

L23 STRUCTURE UPLOADED  
L24 130 S L23 FULL

FILE 'CAPLUS' ENTERED AT 16:37:07 ON 20 AUG 2003

L25 127 S L24  
L26 40 S L22 AND L25

FILE 'REGISTRY' ENTERED AT 16:46:33 ON 20 AUG 2003

L27 439 S L18 FULL

FILE 'CAPLUS' ENTERED AT 16:47:03 ON 20 AUG 2003

L28 139 S L27  
L29 37 S L21 AND L28 AND L25

FILE 'REGISTRY' ENTERED AT 16:53:14 ON 20 AUG 2003

=> s l15 full

FULL SEARCH INITIATED 16:53:26 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 581 TO ITERATE

100.0% PROCESSED 581 ITERATIONS  
SEARCH TIME: 00.00.01

439 ANSWERS

L30 439 SEA SSS FUL L14 AND L13

=>

L29 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:119352 CAPLUS  
 DN 136:175472  
 TI Positive photosensitive composition for photofabrication using deep UV ray  
 IN Kodama, Kunihiro; Aoai, Toshiaki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Eur. Pat. Appl., 120 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

|      | PATENT NO.                                                                                | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 1179750                                                                                | A1   | 20020213 | EP 2001-117796  | 20010802 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO |      |          |                 |          |
|      | JP 2002122994                                                                             | A2   | 20020426 | JP 2001-188670  | 20010621 |
|      | US 2002051933                                                                             | A1   | 20020502 | US 2001-921691  | 20010806 |
|      | US 6492091                                                                                | B2   | 20021210 |                 |          |
| PRAI | JP 2000-240059                                                                            | A    | 20000808 |                 |          |

AB A pos. photosensitive compn. comprises: (A) a compd. generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin contg. a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the soly. to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid. The present invention relates to a pos. photosensitive compn. for use in the prodn. process of a semiconductor such as IC, in the prodn. of a circuit board such as liq. crystal and thermal head, and in other photofabrication processes.

IT 398141-62-3 398141-63-4

RL: TEM (Technical or engineered material use); USES (Uses)  
 (onium salt; deep UV photofabrication pos. photoresist compn. contg.)

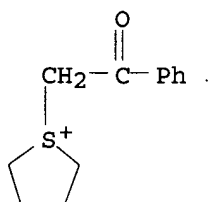
RN 398141-62-3 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, methanesulfonate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 58162-29-1

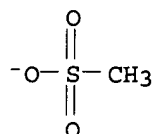
CMF C12 H15 O S

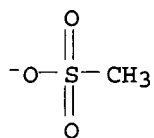


CM 2

CRN 16053-58-0

CMF C H3 O3 S





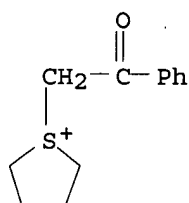
RN 398141-63-4 CAPLUS

CN Cholan-24-oic acid, 3,7,12-trihydroxy-, ion(1-),  
(3.alpha.,5.beta.,7.alpha.,12.alpha.)-, tetrahydro-1-(2-oxo-2-phenylethyl)thiophenium (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S

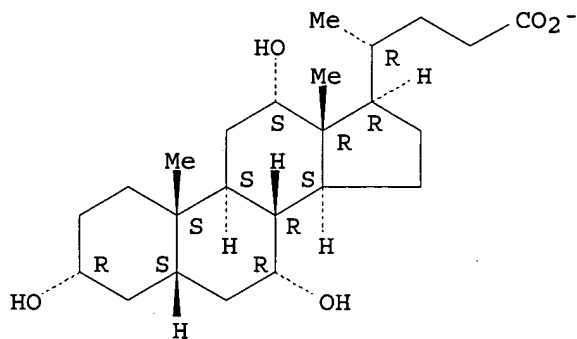


CM 2

CRN 298-43-1

CMF C24 H39 O5

Absolute stereochemistry.



IT 301664-71-1 301664-72-2 398141-19-0

398141-23-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(photoacid generator; deep UV photofabrication pos. **photoresist**  
compn. contg.)

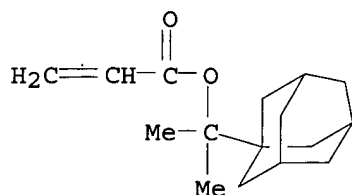
391613-77-7 CAPLUS

CN 2-Propenoic acid, 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, polymer  
with .alpha.,.alpha.-dimethylbicyclo[2.2.1]hept-5-ene-2-methanol,  
2,5-furandione and 1-methyl-1-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylethyl  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 300833-10-7

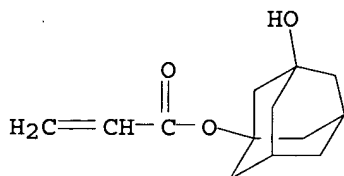
CMF C16 H24 O2



CM 2

CRN 216581-76-9

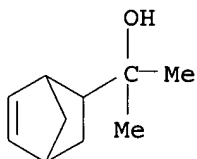
CMF C13 H18 O3



CM 3

CRN 22497-08-1

CMF C10 H16 O



L5 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2002 ACS

AN 2002:793943 CAPLUS

DN 137:317924

TI Perfluoroalkylsulfonic acid compounds for photoresists

IN Ferreira, Lawrence; Blakeney, Andrew J.; Spaziano, Gregory Dominic; Dimov, Ognian; Kocab, Thomas J.; Hatfield, John P.

PA Arch Specialty Chemicals, Inc., USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|    | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---------------|------|----------|-----------------|----------|
| PI | WO 2002082185 | A1   | 20021017 | WO 2002-US10800 | 20020405 |

W: JP, KR, SG

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

PRAI US 2001-281652P P 20010405

OS MARPAT 137:317924

AB The present invention relates to a photoacid compd. that produce a fluorinated alkyl sulfonic acid having a short perfluoroalkyl chain attached to an ether linkage. The invention photoacid has general structure: R-O(CF<sub>2</sub>)<sub>n</sub>SO<sub>3</sub>X (n = 1-4; R = C<sub>1</sub>-C<sub>12</sub> alkyl or alkenyl, aralkyl, aryl, bicycloalkyl, tricycloalkyl, H, alkyl sulfonic acid, perfluoroalkyl, general structure F((CF<sub>2</sub>)<sub>p</sub>O)<sub>m</sub>(CF<sub>2</sub>)<sub>q</sub>-; p = 1-4; m = 0-3; q = 1-4; etc.; X = org. cations and covalently bonded org. radicals). The present invention relates **photoresist** compn comprising such photoacid generator compd.

IT 414911-37-8

RL: TEM (Technical or engineered material use); USES (Uses) (photoacid for photoresists compn. and photolithog.)

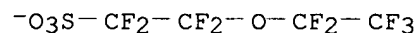
RN 414911-37-8 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with 1,1,2,2-tetrafluoro-2-(pentafluoroethoxy)ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 220689-13-4

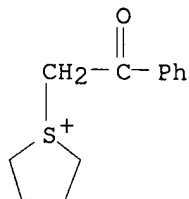
CMF C4 F9 O4 S



CM 2

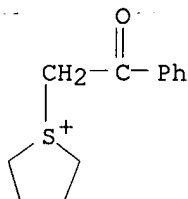
CRN 58162-29-1

CMF C12 H15 O S





IT **58162-29-1**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (sulfonium cation; prepn. of photoacid for photoresists compn. and  
 photolithog.)  
 RN 58162-29-1 CAPLUS  
 CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2002 ACS  
 AN 2002:707243 CAPLUS  
 DN 137:217798  
 TI Highly UV-sensitive radically polymerizable compositions without  
 sensitizers  
 IN Uesugi, Takahiko; Arishima, Shinji; Yagi, Tamao  
 PA Toyo Ink Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

|    | PATENT NO.                                                                        | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-----------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI | JP 2002265512                                                                     | A2   | 20020918 | JP 2001-67938   | 20010312 |
|    | WO 2002072640                                                                     | A1   | 20020919 | WO 2002-JP2303  | 20020312 |
|    | W: CN, KR, US                                                                     |      |          |                 |          |
|    | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,<br>PT, SE, TR |      |          |                 |          |

PRAI JP 2001-67938 A 20010312

OS MARPAT 137:217798

AB The compns., useful for moldings, coatings, photoresists, etc., contain  
 initiators C6R5COCR3R4S+R1R2.Z- (R = H, alkyl, alkoxy, acyloxy, halo,  
 NR5R6, .gtoreq.1 of R are NR5R6, R1-R6 = H, alkyl, aryl; Z- = anion) and  
 radically polymerizable compds. Thus, a cyclohexanone soln. of 100 parts  
 pentaerythritol triacrylate and 6 parts p-Me2NC6H4COCH2S+Me2.BBuPh-  
 manufd. from p-Me2NC6H4COCH2S+Me2.Br- and Li+BBuPh- was applied on a glass  
 plate and dried to give a light yellow layer, which was irradiated with UV  
 at 350-380 nm and 80 mJ/cm2 to give a colorless layer.

IT **457645-65-7P**  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (initiators for highly UV-sensitive radically polymerizable compns.  
 without sensitizers)

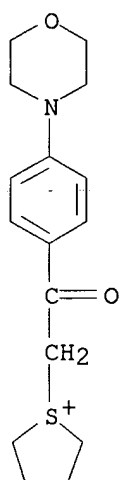
RN 457645-65-7 CAPLUS

CN Thiophenium, tetrahydro-1-[2-[4-(4-morpholinyl)phenyl]-2-oxoethyl]-,  
 (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 457645-64-6

CMF C16 H22 N O2 S



L5 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2002 ACS

AN 2002:314503 CAPLUS

DN 136:348304

TI Positive photosensitive composition

IN Kodama, Kunihiko; Aoai, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 148 pp.

CODEN: EPXXDW

DT Patent

LA English

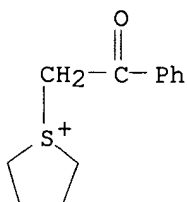
FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                    | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 1199603                                                                                                                                                                                                                                                                    | A1   | 20020424 | EP 2001-124329  | 20011019 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                     |      |          |                 |          |
|      | JP 2002131897                                                                                                                                                                                                                                                                 | A2   | 20020509 | JP 2000-321128  | 20001020 |
|      | JP 2002214774                                                                                                                                                                                                                                                                 | A2   | 20020731 | JP 2001-132546  | 20010427 |
|      | US 2002102491                                                                                                                                                                                                                                                                 | A1   | 20020801 | US 2001-978103  | 20011017 |
| PRAI | JP 2000-321128                                                                                                                                                                                                                                                                | A    | 20001020 |                 |          |
|      | JP 2000-352899                                                                                                                                                                                                                                                                | A    | 20001120 |                 |          |
|      | JP 2001-132546                                                                                                                                                                                                                                                                | A    | 20010427 |                 |          |
| AB   | A pos. photosensitive compn. comprises a compd. capable of generating a specified sulfonic acid upon irradiation with one of an actinic ray and radiation and a resin capable of decomposition under the action of an acid to increase the solubility in an alkali developer. |      |          |                 |          |
| IT   | <b>301664-71-1 398141-19-0 414911-37-8</b><br><b>414911-60-7 414911-65-2 414911-75-4</b><br><b>414911-76-5</b>                                                                                                                                                                |      |          |                 |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses)<br>(photo-acid generator used in pos. <b>photoresist</b> compn.)                                                                                                                                                  |      |          |                 |          |
| RN   | 301664-71-1 CAPLUS                                                                                                                                                                                                                                                            |      |          |                 |          |
| CN   | Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)                                                                                                                                    |      |          |                 |          |

CM 1

CRN 58162-29-1

CMF C12 H15 O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

<sup>-</sup>O<sub>3</sub>S- (CF<sub>2</sub>)<sub>3</sub>-CF<sub>3</sub>

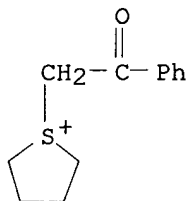
RN 398141-19-0 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with  
trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



L5 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2002 ACS

AN 2000:739615 CAPLUS

DN 133:315619

TI Positive-working **resist composition**

IN Fujimura, Satoshi; Katashima, Miwa; Haneda, Hideo; Iwai, Takeshi

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|    | PATENT NO.        | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------------|------|----------|-----------------|----------|
| PI | JP 2000292917     | A2   | 20001020 | JP 1999-98796   | 19990406 |
| OS | MARPAT 133:315619 |      |          |                 |          |

AB In the title resist compn. contg. (1) a polymer in which the H atoms of the carboxyl groups are substituted by an acid-dissocg. group having alkali dissoln.-inhibiting ability and the acid-dissocg. group is dissocd. by the action of the acid generated by exposure to increase the soly. to aq. alkali solns. and (2) a compd. generating an acid by irradiation with radiation, the acid generator is a mixt. of (a) a triphenylsulfonium salt having substituted or unsubstituted benzene nuclei and (b) a sulfonium salt I (Ar = aryl; X- = C1-15 fluoroalkylsulfonic acid ion) in a (a)/(b) ratio of 5-25 wt.%. The compn. shows high photosensitivity and provides high resolu. patterns with good profile by using ArF excimer lasers.

IT **301664-71-1 301664-72-2**

RL: TEM (Technical or engineered material use); USES (Uses)

(pos. resist compn. contg. polymer having acid decomposable group and sulfonium compds. acid generators)

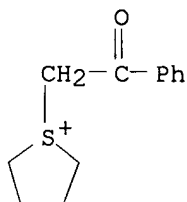
RN 301664-71-1 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanefluorobutanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

$\text{O}_3\text{S}^-(\text{CF}_2)_3-\text{CF}_3$

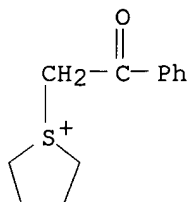
RN 301664-72-2 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with

1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-1-octanesulfonic acid  
(1:1) (9CI) (CA INDEX NAME)

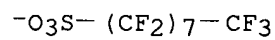
CM 1

CRN 58162-29-1  
CMF C12 H15 O S



CM 2

CRN 45298-90-6  
CMF C8 F17 O3 S



L5 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2002 ACS  
 AN 1997:467621 CAPLUS  
 DN 127:109943  
 TI Light-sensitive polycyanurate compositions as photoresists and their preparation  
 IN Hedrick, Jeffrey Curtis; Papathomas, Konstantinos I.; Tisdale, Stephen L.; Viehbeck, Alfred; Gelorme, Jeffrey Donald; Markovich, Voya Rista; Lewis, Thomas H.; Furniss, Stephen Joseph  
 PA International Business Machines Corporation, USA  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | JP 09137059    | A2   | 19970527 | JP 1996-242987  | 19960913 |
|      | JP 3177173     | B2   | 20010618 |                 |          |
|      | US 5919596     | A    | 19990706 | US 1997-798592  | 19970211 |
| PRAI | US 1995-528291 | A    | 19950914 |                 |          |

AB The curable crack-resistant compns., useful for circuit boards and electronic packaging, contain (1) thermosetting materials comprising cyanate resins and/or their prepolymers, (2) reactive halogen-contg. thermoplastic resins as modifiers, and (3) photosensitizers. Preferably, component 2 is a F-contg. polyoxyarylene and component 3 contains a cation of a Group IV-VIII transition metal.

IT **58162-30-4 71967-58-3 191981-90-5**  
 RL: CAT (Catalyst use); USES (Uses)  
 (photosensitizers; light-sensitive polycyanurate compns. as photoresists)

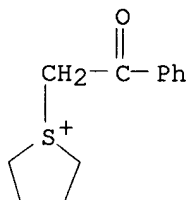
RN 58162-30-4 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, hexafluoroarsenate(1-)  
 (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S

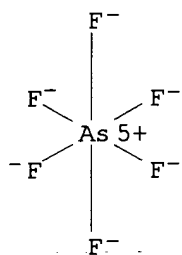


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



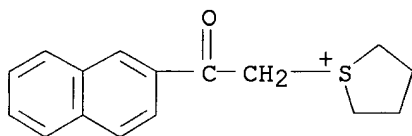
RN 71967-58-3 CAPLUS

CN Thiophenium, tetrahydro-1-[2-(2-naphthalenyl)-2-oxoethyl]-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 71967-57-2

CMF C16 H17 O S

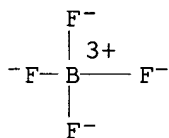


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 191981-90-5 CAPLUS

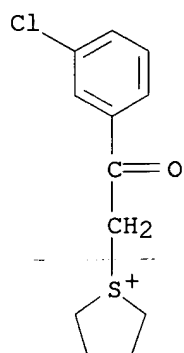
CN Thiophenium, 1-[2-(3-chlorophenyl)-2-oxoethyl]tetrahydro-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 137309-31-0

CMF C12 H14 Cl O S



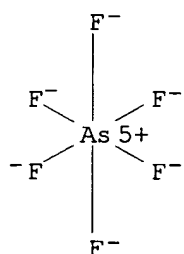


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



L5 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2002 ACS

AN 1997:9 CAPLUS

DN 126:39711

TI Visible-light polymerization initiator and visible-light polymerizable composition

IN Kazama, Hideki; Satoh, Takeshi; Oguri, Makoto

PA Tokuyama Corporation, Japan

SO Eur. Pat. Appl., 39 pp.

CODEN: EPXXDW

DT Patent

LA English

(FILE 'HOME' ENTERED AT 15:06:55 ON 03 DEC 2002)

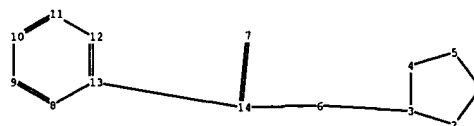
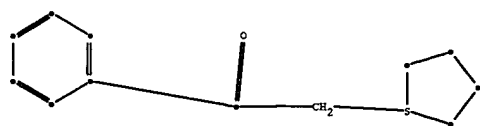
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L1           STRUCTURE UPLOADED  
L2           106 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:09:36 ON 03 DEC 2002

L3           96 S L2  
L4           30380 S PHOTORESIST OR RESIST COMPOSITION  
L5           30 S L3 AND L4

=> d 12



chain nodes :

6 7 14

ring nodes :

1 2 3 4 5 8 9 10 11 12 13

chain bonds :

3-6 6-14 7-14 13-14

ring bonds :

1-2 1-5 2-3 3-4 4-5 8-9 8-13 9-10 10-11 11-12 12-13

exact/norm bonds :

7-14

exact bonds :

1-2 1-5 2-3 3-4 3-6 4-5 6-14 13-14

normalized bonds :

8-9 8-13 9-10 10-11 11-12 12-13

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:CLASS

L5 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2002 ACS

AN 2000:739615 CAPLUS

DN 133:315619

TI Positive-working **resist composition**

IN Fujimura, Satoshi; Katashima, Miwa; Haneda, Hideo; Iwai, Takeshi

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|    | PATENT NO.        | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------------|------|----------|-----------------|----------|
| PI | JP 2000292917     | A2   | 20001020 | JP 1999-98796   | 19990406 |
| OS | MARPAT 133:315619 |      |          |                 |          |

AB In the title resist compn. contg. (1) a polymer in which the H atoms of the carboxyl groups are substituted by an acid-dissocg. group having alkali dissoln.-inhibiting ability and the acid-dissocg. group is dissocd. by the action of the acid generated by exposure to increase the soly. to aq. alkali solns. and (2) a compd. generating an acid by irradiation with radiation, the acid generator is a mixt. of (a) a triphenylsulfonium salt having substituted or unsubstituted benzene nuclei and (b) a sulfonium salt I (Ar = aryl; X- = C1-15 fluoroalkylsulfonic acid ion) in a (a)/(b) ratio of 5-25 wt.%. The compn. shows high photosensitivity and provides high resolu. patterns with good profile by using ArF excimer lasers.

IT **301664-71-1 301664-72-2**

RL: TEM (Technical or engineered material use); USES (Uses)

(pos. resist compn. contg. polymer having acid decomposable group and sulfonium compds. acid generators)

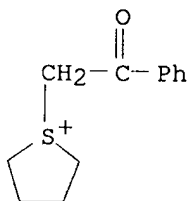
RN 301664-71-1 CAPLUS

CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

$\text{^-O}_3\text{S- (CF}_2\text{)}_3\text{-CF}_3$

RN 301664-72-2 CAPLUS

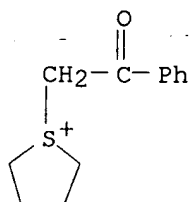
CN Thiophenium, tetrahydro-1-(2-oxo-2-phenylethyl)-, salt with

1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-1-octanesulfonic acid  
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 58162-29-1

CMF C12 H15 O S



CM 2

CRN 45298-90-6

CMF C8 F17 O3 S

$^{-}\text{O}_3\text{S} - (\text{CF}_2)_7 - \text{CF}_3$